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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,609	12/28/2001	Kwok Ken Mak	112025-0471	3790

24267 7590 11/19/2003

CESARI AND MCKENNA, LLP  
88 BLACK FALCON AVENUE  
BOSTON, MA 02210

EXAMINER
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THAI, TUAN V

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 11/19/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/035,609

Applicant(s)

MAK ET AL.

Examiner

Tuan V. Thai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: \_\_\_\_\_

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### Part III DETAILED ACTION

#### *Specification*

1. Claims 1-20 are presented for examination.
2. Applicant is reminded of the duty to fully disclose information under 37 CFR 1.56.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Nguyen et al. (USPN: 5,961,628); hereinafter Nguyen.

As per claim 1; Nguyen discloses the invention as claimed including a method and apparatus for processing a first memory request issued by a requestor and direct to a local memory, the first memory request containing an address corresponding to the memory location (e.g. see column 1, line 62 bridging column 2,

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line 5), the method and apparatus comprising associating the first memory request with a request identifier, and selecting a memory device containing the memory location corresponding to the address (e.g. see column 2, line 66 bridging column 3, line 4 et seq.); issuing the second memory request without the request identifier to the memory device, receiving the information from the memory device and associating the information with the request identifier (e.g. see column 3, lines 6 et seq.).

As per claim 2, wherein the first memory request contain the request identifier (e.g. see column 3, lines 2 et seq.);

As per claim 3, Nguyen discloses generating the request identifier (e.g. see column 3, lines 2 et seq.);

As per claim 4, the further limitation of determining if the memory is available to issue a second memory request is embedded in Nguyen's system and being taught to the extent that it is being claimed; for example, after receiving the first memory request associated with request identification, the load/store unit must determine the availability of the memory before receiving additional memory request, specifically, Nguyen discloses that if the memory (ID queue) is 75% full, the load/store unit stops making requests to cache control unit (e.g. see column 3, lines 6 et seq.; column 14, lines 15 et seq.);

As per claim 5, Nguyen discloses saving/storing the address value and the request identifier (e.g. see column 3, lines 5 et

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seq.);

As per claim 6, Nguyen discloses the requester is a load/store unit of vector processor 120 (e.g. see figures 1 and 2, column 6, lines 16 et seq.);

As per claims 7-10 and 13, they encompass the same scope of invention as to that of claims 1-2, 4-6 respectively; the claims are therefore rejected for the same reasons as being set forth above;

As per claim 11, Nguyen discloses saving/storing the request identifier (e.g. see column 3, lines 5 et seq.);

As per claim 12, Nguyen discloses the first memory request contains a port of origin or being issued from the load/store unit of vector processor 120 (e.g. see figures 1 and 2; column 3, lines 2 et seq.; column 6, lines 16 et seq.);

As per claims 14 and 17, see arguments with respect to claims 1-6; in addition, it should be noted that (a) the requestor for issuing the first memory request is taught as the load/store unit of vector processor 120 (e.g. see figures 1 and 2; column 3, lines 2 et seq.; column 6, lines 16 et seq.); the system controller is taught by Nguyen as a request control circuit (e.g. see figures 1 and 2, column 16, lines 11 et seq.); one or more memory devices coupled to the system controller (or the request control circuit) for receiving one or more second memory requests and return information in response to the second

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memory request is taught as instruction cache 132, data cache 134, ROM cache 136 (e.g. see figure 1);

As per claims 15 and 18, a table having multiple entries with a request identifier field and an address field (e.g. see figure 4, column 3, lines 5 et seq. and lines 45-46);

As per claims 16 and 19, Nguyen discloses the requester is a load/store unit of vector processor 120 (e.g. see figures 1 and 2, column 6, lines 16 et seq.);

#### ***Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al. (USPN: 5,961,628); hereinafter Nguyen.

As per claim 20; Nguyen discloses the invention as claimed, detailed above with respect to claims 1, 7, 14 and 17; Nguyen however does not particularly disclose a computer-readable medium

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comprising computer executable instructions for performing method recited in claims 1, 3, 4 or 5. However, one of ordinary skill in the art would have recognized that computer readable medium (i.e., floppy, cd-rom, etc.) carrying computer-executable instructions for implementing a method, because it would facilitate the transporting and installing of the method on other systems, is generally well-known in the art. For example, a copy of the Microsoft Windows operating system can be found on a cd-rom from which Windows can be installed onto other systems, which is a lot easier than running a long cable or hand typing the software onto another system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to put Nguyen's program on a computer readable medium, because it would facilitate the transporting, installing and implementing of Nguyen's program on other systems.

#### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is 703-305-3842. The fax phone

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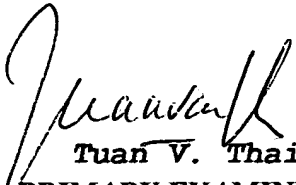
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number for the organization where this application or proceeding is assigned is (703)872-9306.

The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

TVT  
November 14, 2003

  
**Tuan V. Thai**  
**PRIMARY EXAMINER**  
**GROUP 2100**